

# Context dependent face selection in a visual and semantic perspective

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## Context dependent face selection in a visual and semantic perspective

1. The physical similarity between two faces affects the simultaneous encoding of both faces when they are ignored (*this thesis*).
2. Attention to a face presented in the context of another face is needed to efficiently process the attended face and filter out the distractor. Such a mechanism takes place around 250 milliseconds post stimulus onset (*this thesis*).
3. The semantic content of two faces (professions) presented at the same time and unattended is encoded to some extent (*this thesis*).
4. When two faces are simultaneously presented, the identification of the relevant face and the associated profession is easier and requires less attentional resources if the two faces' professions are unrelated (swimmer-pediatrician) compared to a related case (swimmer-footballer) (*this thesis*).
5. The Independent Component Analysis (ICA) applied to EEG uncovered the temporal dynamics of several neural processes (e.g. visual attention, face processing and semantic selection) occurring at the same time (*this thesis*).
6. A good garbage-recycling procedure is a helpful tool to understand the rationale behind ICA: separating in different compartments a mixture of a lot of different things.
7. The optimistic view of combining EEG and fMRI would be to identify the “where” and “when” of a specific neural mechanism. The reality is more likely...where? and when?
8. The amount of minutes that two scientists play table tennis is positively correlated with their work efficiency.
9. Competitive interactions between neural representations of two visual stimuli can be seen as two guys fighting for the same girl. The bias of such competition can be seen as the girl choosing the guy with a PhD.

Francesco Gentile

Maastricht, 25 februari 2011